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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,020	02/15/2001	Ajay Chandra V. Gummalla	1875.0470001	3008

7590 01/25/2005  
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WASHINGTON, DC 20005-3934

EXAMINER
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KADING, JOSHUA A

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/785,020

Applicant(s)

GUMMALLA ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6 is/are rejected.
- 7) ☒ Claim(s) 2, 3, and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10 Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khaunte (U.S. Patent 6,546,017 B1) in view of Beshai (U.S. Patent 6,580,721 B1).

Regarding claim 1, Khaunte discloses "a method for timing the transmission of  
15 unsolicited grants (USGs) of bandwidth to transmit voice packets on a shared transmission medium comprising the steps of:

initializing a control terminal, to receive packets of voice calls having parameters including a bit rate...and a call identification (col. 2, lines 14-21 where the SID is the equivalent of the call identification and the actual bandwidth request is equivalent to the  
20 bit rate due to the fact that the bandwidth and bit rate are directly related to one another meaning that if one is effected the other must be effected);

creating a plurality of queues to define a corresponding plurality of phases at a submultiple of the packetization interval (col. 1, lines 63-col. 2, lines 1-3 where the different priority levels representing each queue is the equivalent of creating queues  
25 based on "phases");

admitting voice calls to the control terminal (col. 2, lines 14-15 where although the data requests being admitted are not disclosed to be specifically voice calls, Khaunte does disclose the system can be used for voice calls as read in col. 9, lines 38-44);

5 distributing the voice calls among the queues in a predetermined order as the voice calls are admitted (col. 2, lines 12-26);

removing the voice calls from the queues as the voice calls are terminated (col. 2, lines 27-34 whereby having the queue empty means the calls were removed from the queue); and

10 periodically issuing at the phases defined by the queues USGs that include a call identification and a grant of bandwidth sufficient to transmit the packets (figure 3A, where the bandwidth request is seen as the horizontal parts as 305 and the associated grant (equivalent to the USG) is seen as the empty space as in 303)."

However, Khaunte lacks what Beshai discloses, the packets having "...a  
15 packetization interval...(figure 3A, element F16 where the packet length is the equivalent of the packetization interval in that each defines the limits of the packet)."

It would have been obvious to one with ordinary skill in the art to include the packetization interval with the rest of the method for the purpose of distinguishing between different types of data, i.e. voice versus data (Beshai, col. 8, line 67-col. 9,  
20 lines 1-16). The motivation is that each type of data must be processed differently and for this reason the data boundaries must be known.

Regarding claim 6, Khaunte and Beshai disclose the method of claim 1.

However, Beshai lacks what Khaunte further discloses, “the control terminal is a cable modem termination system (CMTS) and the shared transmission medium is a cable transmission system (figure 1, element 104), the method additionally comprising the

5 steps of receiving the USGs at cable modems connected to the cable transmission system and transmitting voice packets from the cable modems to the CMTS responsive to the received grants (col. 13, lines 13-16 where as in figure 3A it is seen that the CMTS administers USGs for the cable modems).” It would have been obvious to one with ordinary skill in the art at the time of invention to have the system consist of a

10 CMTS and cable modems for the purpose of transmitting data (including voice) at high data rates (Khaunte, col. 9, table 1). The motivation is the higher data rates mean quicker data transfers and more capacity.

#### ***Allowable Subject Matter***

15 Claims 2, 3, and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

20 Applicant’s arguments, see REMARKS, page 5, *Claim Objections*, filed 16 September 2004, with respect to the claim objection have been fully considered and are persuasive. The objection of claim 5 has been withdrawn.

Applicant's arguments, see REMARKS, page 5, *Rejections under 35 U.S.C. 112*, filed 16 September 2004, with respect to the rejection of claim 4 have been fully considered and are persuasive. The 35 U.S.C. 112 rejection of claim 4 has been  
5 withdrawn.

Applicant's arguments filed 16 September 2004 have been fully considered but they are not persuasive.

Applicant argues that "creating a plurality of queues to define a corresponding  
10 plurality of phases at a sub-multiple of the packetization interval" is not the same as Khaunte's "multiple queues for storing packets having different priority levels." The examiner respectfully disagrees.

As read in the cited portion of Khaunte (col. 1, lines 63-col. 2, lines 1-3), there exists a plurality of priority level queues. These function as applicant's phase queues by  
15 defining the plurality of phases, for the best effort service class. The corresponding plurality of queues can be seen in applicant's figure 13, i.e. the phase queues. The reason that Khaunte reads on this particular limitation of applicant's invention is because as seen in figure 13 there are a plurality of priority queues, which are equivalent to Khaunte's different classes; further, there are a plurality of phase queues  
20 within each plurality queue, which are equivalent to Khaunte's priority queues. Thus, Khaunte's priority queues (applicant's phase queues) are part of Khaunte's different classes (applicant's different priorities). Although Khaunte and applicant refer to the

queues with different names, Khaunte fully discloses the structure of applicant's claimed invention as seen in figure 13 and as read in claim 1.

### ***Conclusion***

5           **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not  
10   mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

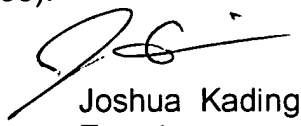
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
20   supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

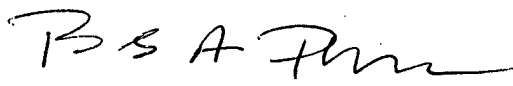
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading  
Examiner  
Art Unit 2661

10 January 10, 2005



**BOB PHUNK**  
**PRIMARY EXAMINER**